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POMC Antibody (monoclonal) (M01)

Mouse monoclonal antibody raised against a partial recombinant POMC.
Catalog # AT3381a

Product Information

Application	WB, E
Primary Accession	P01189
Other Accession	NM_000939
Reactivity	Human
Host	mouse
Clonality	monoclonal
Isotype	IgG1 Kappa
Clone Names	3E12
Calculated MW	29424

Additional Information

Gene ID	5443
Other Names	Pro-opiomelanocortin, POMC, Corticotropin-lipotropin, NPP, Melanotropin gamma, Gamma-MSH, Potential peptide, Corticotropin, Adrenocorticotropic hormone, ACTH, Melanotropin alpha, Alpha-MSH, Corticotropin-like intermediary peptide, CLIP, Lipotropin beta, Beta-LPH, Lipotropin gamma, Gamma-LPH, Melanotropin beta, Beta-MSH, Beta-endorphin, Met-enkephalin, POMC
Target/Specificity	POMC (NP_000930, 205 a.a. ~ 267 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Dilution	WB~~1:500~1000 E~~N/A
Format	Clear, colorless solution in phosphate buffered saline, pH 7.2 .
Storage	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.
Precautions	POMC Antibody (monoclonal) (M01) is for research use only and not for use in diagnostic or therapeutic procedures.

Background

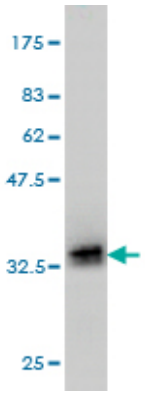
This gene encodes a polypeptide hormone precursor that undergoes extensive, tissue-specific, post-translational processing via cleavage by subtilisin-like enzymes known as prohormone convertases. There are eight potential cleavage sites within the polypeptide precursor and, depending on tissue type and the available convertases, processing may yield as many as ten biologically active peptides involved in diverse cellular functions. The encoded protein is synthesized mainly in corticotroph cells of the anterior pituitary where four cleavage sites are used; adrenocorticotrophin, essential for normal steroidogenesis and

the maintenance of normal adrenal weight, and lipotropin beta are the major end products. In other tissues, including the hypothalamus, placenta, and epithelium, all cleavage sites may be used, giving rise to peptides with roles in pain and energy homeostasis, melanocyte stimulation, and immune modulation. These include several distinct melanotropins, lipotropins, and endorphins that are contained within the adrenocorticotrophin and beta-lipotropin peptides. Mutations in this gene have been associated with early onset obesity, adrenal insufficiency, and red hair pigmentation. Alternatively spliced transcript variants encoding the same protein have been described.

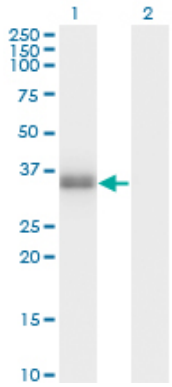
References

Comprehensive analysis of common genetic variation in 61 genes related to steroid hormone and insulin-like growth factor-I metabolism and breast cancer risk in the NCI breast and prostate cancer cohort consortium. Canzian F, et al. Hum Mol Genet, 2010 Oct 1. PMID 20634197.Variation at the NFATC2 Locus Increases the Risk of Thiazolinedinedione-Induced Edema in the Diabetes REduction Assessment with ramipril and rosiglitazone Medication (DREAM) Study. Bailey SD, et al. Diabetes Care, 2010 Jul 13. PMID 20628086.KdPT, a tripeptide derivative of alpha-melanocyte-stimulating hormone, suppresses IL-1 beta-mediated cytokine expression and signaling in human sebocytes. Mastrofrancesco A, et al. J Immunol, 2010 Aug 1. PMID 20610647.Physiogenomic analysis of statin-treated patients: domain-specific counter effects within the ACACB gene on low-density lipoprotein cholesterol? Rua?o G, et al. Pharmacogenomics, 2010 Jul. PMID 20602615.Association study of 182 candidate genes in anorexia nervosa. Pinheiro AP, et al. Am J Med Genet B Neuropsychiatr Genet, 2010 Jul. PMID 20468064.

Images



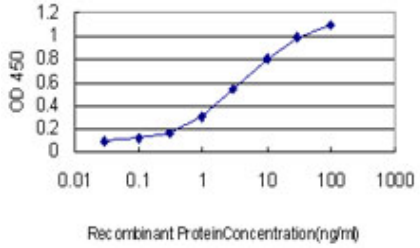
Antibody Reactive Against Recombinant Protein.Western Blot detection against Immunogen (32.67 KDa) .



Western Blot analysis of POMC expression in transfected 293T cell line by POMC monoclonal antibody (M01), clone 3E11.

Lane 1: POMC transfected lysate(29.4 KDa).
Lane 2: Non-transfected lysate.

Detection limit for recombinant GST tagged POMC is approximately 0.1ng/ml as a capture antibody.



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.